

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/25/2003

Edward W. Bulchis, Esq. DORSEY & WHITNEY LLP Suite 3400 1420 Fifth Avenue Seattle, WA 98101

EXAMINER NGUYEN, VAN THU T		
2824	365-222000	

DATE MAILED: 03/25/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,682	01/10/2002	Timothy B. Cowles	500792.05	9115

TITLE OF INVENTION: REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND METHOD FOR DUAL MODE FULL/REDUCED DENSITY DRAMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1300	\$300	\$1600	06/25/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

**Commissioner for Patents** Washington, D.C. 20231

(703)746-4000 Fax INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) 03/25/2003 Edward W. Bulchis, Esq. DORSEY & WHITNEY LLP Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below. **Suite 3400** 1420 Fifth Avenue Seattle, WA 98101 (Signature (Date) ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE FIRST NAMED INVENTOR APPLICATION NO. Timothy B. Cowles 500792.05 01/10/2002 10/043 682 TITLE OF INVENTION: REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND METHOD FOR DUAL MODE FULL/REDUCED DENSITY DRAMS PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE SMALL ENTITY ISSUE FEE APPLN, TYPE 06/25/2003 \$300 \$1600 NO \$1300 nonprovisional CLASS-SUBCLASS EXAMINER ART UNIT NGUYEN, VAN THU T 2824 365-222000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. single firm (having as a member a registered attorney or agent) and the names of up to 2 ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer registered patent attorneys or agents. If no name is listed, no name will be printed. Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE ☐ individual ☐ corporation or other private group entity ☐ government Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ A check in the amount of the fee(s) is enclosed. ☐ Issue Fee ☐ Payment by credit card. Form PTO-2038 is attached □ Publication Fee ☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_(enclose an extra copy of this form). ☐ Advance Order - # of Copies Deposit Account Number Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Date) (Authorized Signature) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, D.C 20231.

TRANSMIT THIS FORM WITH FEE(S)

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# United States Patent and Trademark Office

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Washington, Dc. 20231
www.nepto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/043,682	01/10/2002	Timothy B. Cowles	500792.05	9115	
7590 03/25/2003 Edward W. Bulchis, Esq.			EXAMIN	EXAMINER	
			NGUYEN, VAN THU T		
DORSEY & WHIT Suite 3400	NEY LLP		ART UNIT	PAPER NUMBER	
1420 Fifth Avenue Seattle, WA 98101			2824		
			DATE MAILED: 03/25/2003		

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.hapto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,682	01/10/2002	Timothy B. Cowles	500792.05	9115
	590 03/25/2003		EXAMINI	ER
Edward W. Bulchis, Esq.			NGUYEN, VAN THU T	
DORSEY & WHI' Suite 3400	TNEY LLP		ART UNIT	PAPER NUMBER
1420 Fifth Avenue	;		2824	
Seattle, WA 98101			DATE MAILED: 03/25/2003	

# Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)
	10/043,682	COWLES ET AL.
Notice of Allowability	Examiner	Art Unit
	VanThu Nguyen	2824
The MAILING DATE of this communication apperalled in the communication apperalled in the communication apperalled in the communication apperalled in the communication and the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is responsive to amendment B filed on the communication is res	(OR REMAINS) CLOSED or other appropriate comm IGHTS. This application is and MPEP 1308.  In 3/4/03.  Iner. Ider 35 U.S.C. § 119(a)-(d) or other received.  In the been received in Application is application is application.	in this application. If not included nunication will be mailed in due course. THIS subject to withdrawal from issue at the initiative or (f).
3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  5. Acknowledgment is made of a claim for domestic priority u  (a) The translation of the foreign language provisional a  6. Acknowledgment is made of a claim for domestic priority u	inder 35 U.S.C. § 119(e) (to application has been receiv	o a provisional application). ed.
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of  7.  A SUBSTITUTE OATH OR DECLARATION must be subrine in ABANDAMENT of DECLARATION must be subrine in APPLICATION (PTO-152) which gives rea	this application. THIS TH nitted. Note the attached E	REE-MONTH PERIOD IS NOT EXTENDABLE.  XAMINER'S AMENDMENT or NOTICE OF
8. CORRECTED DRAWINGS must be submitted.  (a) including changes required by the Notice of Draftsper  1) hereto or 2) to Paper No.  (b) including changes required by the proposed drawing  (c) including changes required by the attached Examine  Identifying indicia such as the application number (see 37 CFR of each sheet. The drawings should be filed as a separate paper)	correction filed, wh r's Amendment / Comment 1.84(c)) should be written on	ich has been approved by the Examiner. or in the Office action of Paper No the drawings in the top margin (not the back)
9. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FOR	osit of BIOLOGICAL MAT THE DEPOSIT OF BIOLOG	FERIAL must be submitted. Note the SICAL MATERIAL.
Attachment(s)  1 Notice of References Cited (PTO-892)  3 Notice of Draftperson's Patent Drawing Review (PTO-948)  5 Information Disclosure Statements (PTO-1449), Paper No. 7 Examiner's Comment Regarding Requirement for Deposit of Biological Material	4∏ Intervio	of Informal Patent Application (PTO-152) ew Summary (PTO-413), Paper No ner's Amendment/Comment ner's Statement of Reasons for Allowance  VANTHUNGUVIN